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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/659,303

09/11/2003

Nobumasa Suzuki

P24195

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EXAMINER

WERNER, JONATHAN S

ART UNIT

PAPER NUMBER

3732

NOTIFICATION DATE

DELIVERY MODE

06/16/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/659,303 | Applicant(s) SUZUKI ET AL. | |
| | Examiner JONATHAN WERNER | Art Unit 3732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to Applicant's arguments received 2/29/08.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ojima et al (5,147,361) in view of Scharf (6,682,563) and Gaines, Jr. (2002/0068940).

Ojima shows, in Figure 4, a vertebra body plate 40 comprising a main body portion a plurality of screw insertion holes 44, 45 that are the only holes in the body portion. The screw holes are the same shape and size and spikes 13 extend from the body portion. Ojima does not disclose that the spikes are located closer to the outer edge of the plate than the screw holes.

Gaines, Jr. shows a vertebra body plate having screw holes 38, 40 located on a diagonal line connecting two opposite corners. Spikes 42 are located at the outer edge of the plate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the spikes of Ojima at the edge of the plate, as taught by Gaines, Jr., in order to ensure that the entire plate is in contact with the vertebral body. Also, Ojima does not disclose that the body portion has a rhombic shape and that the

screw holes are provided on at least one of the diagonal lines that connect opposite corners of the body portion.

Scharf shows a rhombic vertebra body plate 10 comprising a plurality of screw holes 31, 32 located on the diagonal lines connecting opposite corners of the body portion. Scharf states that the rhombic shape is desirable so that "multiple devices can be utilized on a single spinal column...disposed in relatively close proximity without having the plates members interfere and without reducing the efficacy of the mounting mechanism." (column 2, lines 41-45). It would have been obvious to form the body plate of Ojima in the shape of a rhombus and locate the holes on the diagonal lines, as taught by Scharf, so that a plurality of plates may be used in close proximity without reducing efficacy of the system. As to claims 2 and 3, Ojima, as modified by Scharf, discloses the claimed invention except for the spikes having a V-shaped cross section. It would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the spike with a V-shaped cross section, since applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or configurations a person ordinary skill in the art would find obvious for the purpose of providing a bone gripping means. In re Dailey and Eilers, 149 USPQ 47 (1966). As to claim 5, given the similarity in the shapes of Scharf's plate and applicant's plate, it is held that the plate of Ojima as modified by Scharf is formed to have a curved shaped corresponding to a peripheral surface of a vertebral body.

Response to Arguments

2. Applicant's arguments filed 2/29/08 have been fully considered but they are not persuasive. In response to applicant's arguments, Examiner notes that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, applicant argues that the Ojima reference does not teach that the lines connecting the sharp apexes define a rhombic shape, and instead form a "truncated trapezoidal shape." However, Examiner points out that this was noted in the previous office action, for which the Scharf reference was relied upon to teach such a rhombic shape. Specifically, Scharf shows a rhombic vertebra body plate 10 comprising a plurality of screw holes 31, 32 located on the diagonal lines connecting opposite corners of the body portion. Scharf states that the rhombic shape is desirable so that "multiple devices can be utilized on a single spinal column...disposed in relatively close proximity without having the plates members interfere and without reducing the efficacy of the mounting mechanism." (column 2, lines 41-45). Therefore, it would have been obvious to form the body plate of Ojima in the shape of a rhombus and locate the holes on the diagonal lines, as taught by Scharf, so that a plurality of plates may be used in close proximity without reducing efficacy of the system.

3. Similarly, applicant argues that the disclosure of Gaines does not supply the deficiencies of Ojima and Scharf since the spikes of Gaines are positioned to define a generally "square shape." However, Examiner points out that the Gaines reference was relied upon to show that spikes can be located closer to the outer edge of the plate than the screw holes – not to show the shape defined by said spikes. To this extent, Examiner points out in response to applicant's arguments against the references individually, that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

4. Lastly, in response to applicant's argument that another advantage of the presently claimed advantage is that the positioning of the spikes and the location of the screw holes allow the body plate to provide improved fixation to a vertebra body, Examiner notes that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN WERNER whose telephone number is (571)272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jonathan Werner/
Examiner, Art Unit 3732

6/8/08

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732